Application No.: 09/850,167 Attorney Docket No. 02860.0676

Customer No. 22,852

## **AMENDMENTS TO THE CLAIMS:**

Please amend claim 1 as follows:

1. (currently amended): A cellulose ester film comprising (a) an ultraviolet absorbent polymer having at least one of repeating units represented by the following formulae (1) and (2) and repeating units having ultraviolet absorbent structures represented by the following formulae (3), (4) and (5), (b) an ultraviolet absorbent polymer which is a copolymer of a repeating unit represented by the following formula (6), (7) or (19) with a monomer unit derived from another ethylenically unsaturated monomer, (c) an ultraviolet absorbent polymer which is a copolymer of a monomer represented by the following formula (8) with a monomer represented by the following formula (9), or (d) modified cellulose in which an ultraviolet absorbent structure bonds directly or through a spacer to a hydroxy group of cellulose or its derivative: formula (1)

$$-\left(J_{1}-Sp_{1}\right)$$

wherein J<sub>1</sub> represents -O-, -NR<sub>1</sub>-, -S-, -SO-, -SO<sub>2</sub>-, -POO-, -CO-, -COO-, -NR<sub>2</sub>CO-, -NR<sub>3</sub>COO-, -NR<sub>4</sub>CONR<sub>5</sub>-, -OCO-, -OCONR<sub>6</sub>-, -CONR<sub>7</sub>-, -NR<sub>8</sub>SO-, -NR<sub>9</sub>SO<sub>2</sub>-, -SONR<sub>10</sub>-, or -SO<sub>2</sub>NR<sub>11</sub>-, in which R<sub>1</sub> through R<sub>11</sub> independently represent a hydrogen atom, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group; and Sp<sub>1</sub> represents a divalent linkage which may have a halogen atom **or a substituent**, <u>an alkyl group</u>, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy

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group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group, provided that an ultraviolet absorbent structure bonds directly or through a spacer to Sp<sub>1</sub> or forms a part of the polymer main chain, formula (2)

$$-(J_2-Sp_2-J_3-Sp_3)-$$

wherein  $J_2$  and  $J_3$  represent the same group as  $J_1$  denoted in formula (1) above, and may be the same or different;  $Sp_2$  and  $Sp_3$  independently represent a divalent linkage which may have a halogen atom **or a substituent**, an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonylamino group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group, and may be the same or different, provided that an ultraviolet absorbent structure bonds directly or through a spacer to at least one of  $Sp_2$  and  $Sp_3$  or forms a part of the polymer main chain in at least one of  $Sp_2$  and  $Sp_3$ ,

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formula (3)

wherein R<sub>12</sub> through R<sub>25</sub> independently represent a hydrogen atom, a halogen atom **er-a substituent**, an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group, provided that the two adjacent groups of R<sub>12</sub> through R<sub>25</sub> may combine with each other to form a ring, and provided that the ultraviolet absorbent structure of formula (3) bonds directly or through a spacer to the polymer main chain or forms a part of the polymer main chain,

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formula (4)

$$R_{26}$$
 $R_{28}$ 
 $R_{29}$ 
 $R_{30}$ 
 $R_{30}$ 

wherein R<sub>26</sub> and R<sub>27</sub> independently represent an alkyl group having a carbon atom number of 1 to 10; R<sub>28</sub>, R<sub>29</sub> and R<sub>30</sub> independently represent a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkylthio group or a substituted or unsubstituted amino group; X and Y independently represent an electron withdrawing group, provided that R<sub>26</sub> through R<sub>305</sub> X and Y may have a halogen atom, or a substituent an alkyl group, an aryl group, an acyl group, an alkylthio group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonylamino group, a sulfonylamino group, an aryloxycarbonyl group, a sulfonylamino group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group, or may combine with another to form a 5- or 6-member ring, and provided that the ultraviolet absorbent structure of formula (4) bonds directly or through a spacer to the polymer main chain or forms a part of the polymer main chain.

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formula (5)

$$R_{68}$$
 $R_{69}$ 
 $R_{70}$ 
 $R_{66}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 
 $R_{71}$ 

wherein R<sub>66</sub> through **R**<sub>74</sub> <u>R<sub>70</sub></u> independently represent a hydrogen atom, a halogen atom or a substituent, an alkyl group, an alkoxy group or an alkylamino group, and R<sub>71</sub> represents a hydroxy group, a halogen atom or an alkyl group, provided that the two adjacent groups of R<sub>66</sub> through R<sub>71</sub> may combine with each other to form a ring; X and Y independently represent an electron withdrawing group, provided that X and Y may have a halogen atom, or a substituent an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nimido group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nimido group, or a heterocyclic group, but do not combine with each other to form a ring; and provided that the ultraviolet absorbent structure of formula (5) bonds directly or through a spacer to the polymer main chain,

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formula (6) 
$$CH_2$$
  $CH$   $Sp_4$   $HO$   $(R_{32})_m$   $(R_{31})_{\ell}$ 

wherein R<sub>31</sub> and R<sub>32</sub> independently represent a halogen atom, or a substituent; an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group; ℓ represents 0, 1, 2, or 3, provided that when ℓ is 2 or 3, plural R<sub>31</sub>s may be the same or different; m represents 0, 1, 2, 3, or 4, provided that when m is 2, 3 or 4, plural R<sub>32</sub>s may be the same or different; J₄ represents a group selected from \*-O-, \*-NR₁-, \*-S-, \*-SO-, \*-SO₂-, \*-POO-, \*-CO-, \*-COO-, \*-NR₂CO-, \*-NR₃COO-, \*-NR₄CONR₅-, \*-OCO-, \*-OCONR₆-, \*-CONR<sub>7</sub>-, \*-NR₃SO-, \*-NR₃SO₂-, \*-SONR₁₀-, \*-SO₂NR₁₁- or \*-OCOR₁₂-, in which symbol "\*" represents that the group bonds to the

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ultraviolet absorbent structure at the position "\*" (on the side of J<sub>4</sub> opposite Sp<sub>4</sub>) and R<sub>1</sub> through R<sub>12</sub> independently represent the same as R<sub>1</sub> through R<sub>11</sub> denoted in formula (1) above; and Sp<sub>4</sub> represents a divalent linkage which may have a halogen atom **er a substituent**, an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group, formula (7)

$$(R_{33})_s$$
 $(R_{34})_o$ 
 $(R_{34})_o$ 

wherein R<sub>33</sub> and R<sub>34</sub> independently represent a halogen atom, or a substituent; an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl

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group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group; o represents 0, 1, 2 or 3, provided that when o is 2 or 3, plural R<sub>34</sub>s may be the same or different; s represents 0, 1, 2, 3 or 4, provided that when s is 2, 3 or 4, plural R<sub>33</sub>s are the same or different; J<sub>5</sub> represents a group selected from \*-O-. \*-NR<sub>1</sub>-, \*-S-, \*-SO-, \*-SO<sub>2</sub>-, \*-POO-, \*-CO-, \*-COO-, \*-NR<sub>2</sub>CO-, \*-NR<sub>3</sub>COO-, \*-NR<sub>4</sub>CONR<sub>5</sub>-, \*-OCO-, \*-OCONR<sub>6</sub>-, \*-CONR<sub>7</sub>-, \*-NR<sub>8</sub>SO-, \*-NR<sub>9</sub>SO<sub>2</sub>-, \*-SONR<sub>10</sub>-, \*-S0<sub>2</sub>NR<sub>11</sub>- or \*-OCOR<sub>12</sub>-, in which symbol "\*" represents that the group bonds to the ultraviolet absorbent group at the position "\*" (on the side of J<sub>5</sub> opposite Sp<sub>5</sub>) and R<sub>1</sub> through R<sub>12</sub> independently represent the same as R<sub>1</sub> through R<sub>11</sub> denoted in formula (1) above; and Sp<sub>5</sub> represents a divalent linkage which may have a halogen group or a substituent, an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group,

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formula (8)

$$(R_{35})_q$$
 $(R_{36})_r$ 
 $(R_{36})_r$ 
 $Sp_6$ 
 $O$ 
 $R_{37}$ 

formula (9)

wherein R<sub>35</sub> through R<sub>36</sub> independently represent a halogen atom, or a substituent; an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkylamino group, an aryloxy group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, an imido group, or a

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heterocyclic group; r represents 0, 1, 2 or 3, provided that when r is 2 or 3, plural R<sub>36</sub>s are the same or different; q represents 0, 1, 2, 3 or 4, provided that when q is 2, 3 or 4, plural R<sub>35</sub>s may be the same or different; R<sub>37</sub> through R<sub>39</sub> independently represent a hydrogen atom, a halogen atom, or a substituent; an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group; and Sp<sub>6</sub> represents a divalent linkage which may have a halogen atom or a substituent, an alkyl group, an aryl group, an acyl group, a sulfonyl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an amino group, an alkylamino group, an arylamino group, an acylamino group, a hydroxy group, a cyano group, a carbamoyl group, a sulfamoyl group, a sulfonamido group, an acyloxy group, an oxycarbonyl group, a sulfonylamino group, a ureido group, a sulfamoylamino group, an alkoxycarbonyl group, an aryloxycarbonyl group, a nitro group, an imido group, or a heterocyclic group.

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formula (19)

wherein R<sub>111</sub> represents a halogen atom, or a substituent positioned on the benzene ring through an exygen atom, a nitrogen atom or a sulfur atom; a hydroxy group, an alkoxy group, an aryloxy group, a heterocyclicoxy group, a carbonyloxy group, a urethan group, a sulfonyloxy group, a nitro group, an amino group, a sulfonylamino group, a sulfamoylamino group, an acylamino group, a ureido group, an alkylthio group, an arylthio group, a heterocyclicthio group, a sulfinyl group, a sulfonyl group, or a sulfamoyl group; R<sub>112</sub> represents a hydrogen atom, a substituted or unsubstituted aliphatic group, a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted heterocyclic group; a represents an integer of from 1 to 4, provided that plural R<sub>111</sub>s or plural R<sub>112</sub>s may be the same or different; R<sub>113</sub>, R<sub>115</sub>, and R<sub>116</sub> independently represent a hydrogen atom, a substituted or unsubstituted aliphatic group, a substituted or unsubstituted aromatic hydrocarbon group or a substituted or

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unsubstituted heterocyclic group; R<sub>114</sub> represents a substituent positioned on the benzene ring through an oxygen atom or a nitrogen atom; a hydroxy group, an alkoxy group, an aryloxy group, a heterocyclicoxy group, a carbonyloxy group, a urethan group, a sulfonyloxy group, a nitro group, an amino group, a sulfonylamino group, a sulfamoylamino group, an acylamino group, a ureido group; and at least one of R<sub>111</sub> through R<sub>116</sub> has a group represented by the following formula (20), formula (20),

$$-L-O-C-C=CH_2$$

wherein L represents a divalent linkage or a simple bond; and R<sub>110</sub> represents a hydrogen atom or a substituted or unsubstituted alkyl group.

- 2. (original): The cellulose ester film of claim 1, wherein the cellulose ester film has a transmittance at 380 nm of 0 to 10%.
- 3. (original): The cellulose ester film of claim 1, wherein the cellulose ester film has a haze of 0 to 0.5.

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4. (original): The cellulose ester film of claim 1, wherein the ultraviolet absorbent polymer is a copolymer of the repeating unit represented by formula (1), (2), (6), (7) or (19) or a repeating unit having an ultraviolet absorbent structure represented by formula

(3), (4) or (5) with another ethylenically unsaturated monomer.

5. (original): The cellulose ester film of claim 4, wherein the ethylenically

unsaturated monomer is acrylic ester comprising a hydroxy group or an ether bond or

methacrylic ester comprising a hydroxy group or an ether bond.

6. (original): The cellulose ester film of claim 1, wherein the ultraviolet absorbent

polymer is the copolymer of a repeating unit represented by formula (6) and a monomer

unit derived from another ethylenically unsaturated monomer, the content of the

repeating unit represented by formula (6) in the copolymer being 1 to 45% by weight.

7. (original): The cellulose ester film of claim 6, wherein the ethylenically

unsaturated monomer is acrylic ester comprising a hydroxy group or an ether bond or

methacrylic ester comprising a hydroxy group or an ether bond.

8. (original): The cellulose ester film of claim 1, wherein the ultraviolet absorbent

polymer is the copolymer of a repeating unit represented by formula (7) and a monomer

unit derived from another ethylenically unsaturated monomer, the content of the

repeating unit represented by formula (7) in the copolymer being 1 to 55% by weight.

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9. (original): The cellulose ester film of claim 8, wherein the ethylenically unsaturated monomer is acrylic ester comprising a hydroxy group or an ether bond or methacrylic ester comprising a hydroxy group or an ether bond.

10. (original): The cellulose ester film of claim 1, wherein the ultraviolet absorbent polymer is the copolymer of a repeating unit represented by formula (19) and a monomer unit derived from another ethylenically unsaturated monomer, the content of the repeating unit represented by formula (19) in the copolymer being 1 to 55% by weight.

- 11. (original): The cellulose ester film of claim 1, wherein the ultraviolet absorbent polymer is the copolymer of a repeating unit represented by formula (7) and a monomer unit derived from another ethylenically unsaturated monomer, and wherein in formula (7), s and o are not simultaneously zero.
- 12. (original): The cellulose ester film of claim 11, wherein the content of the repeating unit represented by formula (7) in the copolymer is 1 to 55% by weight.
- 13. (original): The cellulose ester film of claim 1, wherein the cellulose ester of the cellulose ester film is a lower fatty acid ester of cellulose.
- 14. (original): The cellulose ester film of claim 1, wherein the compound having an ultraviolet structure represented by formula (3), (4), or (5), or the monomer, from which the repeating unit having an ultraviolet structure represented by formula (1), (2),

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(6), (7), or (19) is derived, has a molar extinction coefficient at 380 nm of not less than 4000.

15. (original): The cellulose ester film of claim 1, wherein the compound having an ultraviolet structure represented by formula (3), (4), or (5), or the monomer, from which the repeating unit having an ultraviolet structure represented by formula (1), (2), (6), (7), or (19) is derived, has a molar extinction coefficient at 380 nm of not less than 4000, and a ratio of molar extinction coefficient at 380 nm to molar extinction coefficient at 400 nm of not less than 20.

- 16. (original): The cellulose ester film of claim 1, wherein the ultraviolet absorbent polymer has a weight average molecular weight of 2,000 to 20,000.
- 17. (original): The cellulose ester film of claim 1, wherein the cellulose ester film is a member for constituting a liquid crystal display.
- 18. (original): The cellulose ester film of claim 17, wherein the cellulose ester film is a polarizing plate protective film.
- 19. (original): The cellulose ester film of claim 17, wherein the cellulose ester film is a support for an optical compensation film.
- 20. (original): The cellulose ester film of claim 1, wherein the thickness of the cellulose ester film is 5 to 200 μm.

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21. (original): The cellulose ester film of claim 20, wherein the thickness of the cellulose ester film is 20 to 65  $\mu$ m.

22. (withdrawn): A polarizing plate comprising a first polarizing plate protective film, a polarizing element and a second polarizing plate protective film, wherein at least one of the first polarizing plate protective film or the second polarizing plate protective film is the cellulose ester film of claim 1.

23. (withdrawn): The polarizing plate of claim 22, wherein the cellulose ester film comprises an ultraviolet absorbent polymer which is a copolymer of a repeating unit represented by formula (7) and a monomer unit derived from another ethylenically unsaturated monomer, the content of the repeating unit represented by formula (7) in the copolymer being 1 to 55 weight %.

24. (withdrawn): A liquid crystal display comprising a first polarizing plate, a second polarizing plate, and a liquid crystal cell provided between the first and second polarizing plates, the first polarizing plate being arranged on the viewer side of the display, wherein the first polarizing plate has a first film, a second film and a first polarizing film between the first and second films so that the second film is provided on the first polarizing film on the liquid crystal cell side, the second polarizing plate has a third film, a fourth film and a second polarizing film between the third and fourth films so that the third film is provided on the second polarizing film on the liquid crystal cell side, and at least one of the first, second, third and fourth films is the cellulose ester film of claim 1.

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25. (withdrawn): The liquid crystal display of claim 24, wherein the cellulose ester film comprises an ultraviolet absorbent polymer which is a copolymer of a repeating unit represented by formula (7) and a monomer unit derived from another ethylenically unsaturated monomer, the content of the repeating unit represented by formula (7) in the copolymer being 1 to 55 weight %.

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